that are raised by Sinclair, then we need to think about other steps that should be taken."[39] Once the Commission begins this process, it will become clear that the only viable solution is a dual-mode standard that permits broadcasters to operate using the COFDM-based DVB-T standard.[40] Only with DVB-T will consumers have access to a DTV service that is competitive with any in the world. If the Commission instead continues to be complacent on the issue of digital modulation, the U.S. will soon find itself with an insurmountable DTV deficit in the global digital environment.

A. COFDM-based technology permits ease of reception and reliable over-the-air service to viewers using simple antennas in broadcasters' core business areas

Unlike 8-VSB, COFDM was designed specifically to overcome the known effects of multipath conditions.[41] In fact, reception of COFDM-based signals is actually enhanced by multipath conditions; COFDM thereby permits ease of reception and reliable over-the-air DTV service, including HDTV service, by viewers using simple antennas in broadcasters' core business areas.

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39 *See* TV Technology Magazine (January 2000).

40 In the *Biennial Review NPRM*, the Commission asks whether a receiver performance standard would be an effective solution to the current 8-VSB reception problem. *Biennial Review NPRM* at para.13. Sinclair does not believe that such a standard is a viable policy option. While hypothetically the Commission could require that 8-VSB receivers provide ease of reception and reliable over-the-air service, there currently is no technological means of reaching this goal; as a result, this requirement would be impossible to satisfy and, therefore, meaningless. Realistically, until it is possible to identify specific technical specifications which will ensure ease of reception and reliable over-the-air service under real-world, complex multipath conditions, the Commission should not consider this regulatory approach.

41 COFDM-based signals are able to overcome multipath conditions because of the division of their data payloads into a large number of carriers. (The COFDM signals used in Sinclair's *Comparative Study* were divided into 1705 separate carriers.) While each COFDM carrier's data rate is very slow, the totality of all the carriers closely matches the 8-VSB payload. Each carrier's data rate is slow enough, however, that the COFDM

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The ease of reception and reliability of over-the-air service provided by COFDM has been demonstrated repeatedly in tests all over the world. Sinclair's own Baltimore testing, documented in the *Comparative Study,* was the first side-by-side analyses of COFDM and 8-VSB reception under real-world, complex multipath conditions. In these tests, reception of Sinclair's 6 MHz COFDM-based DVB-T signal, at a data rate permitting HDTV service, was robust.[42] At all of the more than thirty test sites inside Sinclair's Grade A contour, Sinclair's COFDM transmissions were successfully received through both a dipole and a double bow-tie antenna (compared to a one-third success rate for 8-VSB). In addition, this reception was maintained more than fifty percent of the time when the antenna orientation was shifted over a 180 degree arc, evidence of the ease of reception of this signal. Thus, COFDM does more than replicate the current ease of reception in the NTSC environment, it actually improves ease of reception and reliability of over-the-air service.

Other tests, including one conducted in the U.S. earlier this year by NBC and others outside the U.S. in Australia and Brazil, have confirmed the ability of COFDM to overcome complex multipath conditions and permit ease of reception and reliable over-the-air DTV service. This hard evidence of robust performance contrasts starkly with the unsubstantiated

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system can receive signals from all directions without a penalty -- in fact, the extra signals received from nonaligned reflections actually improve reception.

42 Sinclair transmitted the COFDM and 8-VSB signals over a standard 6 MHz U.S. channel allocation at equal average power levels, with both the COFDM and 8-VSB systems sustaining data rates that permit the provision of HDTV service. While the 8-VSB system automatically delivered programming at its fixed data rate of 19.39 Mbps, Sinclair chose a COFDM data rate of 18.67 Mbps from a number of different throughput options. This rate was selected since it permits the provision of HDTV service while ensuring high-quality reception through simple antennas. Sinclair used receivers that were generally available to the broadcast industry and consumers at that time, and it used common antenna, transmission, and receive systems throughout this testing period.

claims and laboratory reports that 8-VSB proponents have presented to the public and the Commission.[43]

B. Use of COFDM would enable broadcasters to provide a variety of fixed and portable DTV video services

The COFDM-based DVB-T standard would not only permit reliable reception of DTV through simple consumer-grade antennas, it would also enhance broadcasters' flexibility in formatting their DTV programming streams and providing portable DTV video services. In contrast to the ATSC 8-VSB standard, which limits a broadcaster to one fixed data rate, COFDM broadcasters can vary their data rates (4 to 24 Mbps) and employ hierarchical modulation techniques to achieve a wide range of operational modes and meet a variety of service goals.[44] (The laws of physics preclude hierarchical modulation in the ATSC 8-VSB standard.) With COFDM, broadcasters could thereby transmit (i) an 18.67 Mbps programming stream for HDTV service, (ii) multiple Standard Definition TV ("SDTV") programming streams at various data rates, or (iii) data streams that would permit portable DTV video services.[45] COFDM broadcasters could provide a mix of digital services not possible with ATSC 8-VSB, with the overall menu of offerings shifting over a broadcaster's programming schedule. For instance,

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43 Sinclair has consistently relied on hard technical data in advocating its position before the Commission, and has in every instance exposed its test methodologies and technical analysis to the bright lights of professional peer review. For instance, in October 1999 it presented the results of its Philadelphia and Baltimore tests of 8-VSB and COFDM reception to the IEEE in Washington, D.C.

44 With hierarchical modulation, a broadcaster can assign different levels of reception priority to separate portions of its bitstream. One portion of a broadcaster's bitstream can be assigned a high priority for reception, reducing the data rate for that programming stream but permitting its reception in portable environments, while another portion of that bitstream can be assigned a lower priority, permitting an HDTV data rate but limiting reception of that HDTV stream to fixed environments.

45 Sinclair defines "portable" services as those received by persons traveling at or below walking speed.

during the evening rush hour a DTV broadcaster might simultaneously transmit one HDTV channel and one portable DTV channel. As described above, Sinclair demonstrated this capability at the NAB Convention, simultaneously broadcasting an HDTV programming stream to a fixed COFDM DTV receiver and an SDTV stream to a portable, laptop-sized receiver.

C. COFDM provides broadcasters with a greater capacity for technological improvement

COFDM allows broadcasters to vary their data rates, and this flexibility gives COFDM a greater capacity for technological improvement than ATSC 8-VSB.[46] In fact, COFDM currently supports 6 MHz bandwidth data rates as high as approximately 24 Mbps, and, in the foreseeable future, COFDM broadcasters will likely be able to operate at this current maximum or at an even higher rate while offering the same ease of reception as seen in the Baltimore tests. This enhanced data bandwidth would offer great benefits, enabling COFDM broadcasters to transmit multiple HDTV programming streams, for example. In contrast, even if 8-VSB broadcasters can someday overcome dynamic multipath effects, they will always be limited to the same fixed, inflexible data rate of approximately 19.39 Mbps.[47] This higher technological "ceiling" for COFDM should weigh heavily in favor of a flexible digital modulation standard.

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46 This greater capacity for improved performance has already been demonstrated. Since 1996, when the Commission adopted 8-VSB, COFDM technology has developed continuously and substantially, while 8-VSB performance has remained largely stagnant.

47 The fixed data rate associated with the existing standard will not prevent 8-VSB broadcasters from over time increasing the volume of programming transmitted over their 6 MHz channels; advances in coding and compression technologies will permit some improvement in their service. The improvements in COFDM service, however, will be more rapid and substantial, with COFDM will also benefit from improvements in compression technology.

D. A decision to permit COFDM operations in the u.s. would accelerate consumer acceptance of DTV and increase the chances for a successful DTV transition

With additional evidence accumulating in the months since Sinclair filed its Petition, the Commission should now acknowledge that a decision to permit COFDM operations is critical to the success of the DTV transition. Only if broadcasters are permitted to operate using COFDM will portable DTV services be available, and will consumers have any confidence in the near term that DTV reception through simple antennas will be reliable and robust. Such factors are critical to growth in consumer acceptance and DTV market penetration, which must rise to eighty-five percent of all TV households in a given market before the DTV transition in that market is considered complete there and the NTSC analog spectrum is recaptured.[48]

A COFDM-based U.S. standard would also be more compatible with the DTV systems being implemented in a majority of countries around the world. (This majority may grow larger following Argentina's decision to reopen its selection process for a DTV modulation standard.) Permitting COFDM operations domestically would heighten the interest of global manufacturers in the U.S. market, make a greater variety of DTV products available in the U.S., lower the price of digital equipment, and further promote the adoption of DTV technology by American consumers.[49]

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48 As stated earlier, the need to reach the eighty-five percent market penetration threshold only applies if cable operators are not required to carry all operating DTV stations during the transition.

49 As indicated above, COFDM-based DTV service will be available in at least 300 million TV households around the world.

E. There are still no legitimate technical, economic, or administrative reasons for precluding COFDM operations in the United States

Prior to and following Sinclair's filing of its Petition, OET, CEA, and others offered a variety of technical, economic, and administrative reasons for why it was better for the Commission to maintain exclusive reliance on the ATSC 8-VSB standard and reject Sinclair's request for a dual-mode modulation standard. Sinclair has repeatedly argued that these claims do not constitute a legitimate basis for a continuation of the status quo. Below, Sinclair again addresses several of these assertions.

1. Relative coverage of COFDM and 8-VSB signals

8-VSB proponents claim that the ATSC 8-VSB standard provides greater signal coverage than COFDM. At equivalent power levels, assuming laboratory conditions (gaussian channels with Ricean impairments), it is true that the ATSC 8-VSB standard may appear to permit greater signal coverage than COFDM, since 8-VSB signals can be decoded at power levels below the decoding threshold for COFDM. As explained in Sinclair's Petition, however, Sinclair's own tests demonstrated that in a real-world environment, including complex multipath conditions, this difference decreases to 2 dB. *Comparative Study* at 16. More importantly, under the same real-world conditions, this 2 dB difference does not lead to any material difference in the receivability of the 8-VSB and COFDM signals. As indicated in the *Comparative Study*, at the nine test locations at the fringe of the signal coverage area, the quality of COFDM and ATSC 8-VSB reception was shown to be equivalent. *See Comparative Study* at 15.

For the very small percentage of TV households at the Grade B fringe that may be unable to obtain high-quality COFDM reception, such reception could be ensured through the purchase and deployment of a preamplifier, which typically costs between $10 and $20. In contrast, there is no reasonable technological solution for the urban viewer whose location suffers from

multipath distortion. Short of deploying an expensive rooftop antenna or subscribing to cable, urban households relying on simple antennas will be powerless to overcome 8-VSB multipath effects.

2. Cost of dual-mode DTV modulation standard for DTV receiver manufacturers

Sinclair continues to believe that the costs that would be incurred by DTV receiver manufacturers as the result of a dual-mode modulation standard are not a valid basis for maintenance of the status quo. As an initial matter, those 8-VSB proponents who argue that equipment manufacturers will not manufacture a dual-mode receiver because of cost are often the same advocates who argue that manufacturers will embrace a third-party "miracle" 8-VSB chip *regardless* of cost, and these observers lack credibility.

In any case, Sinclair believes that the cost incurred by receiver manufacturers from a dual-mode standard would be marginal. The DTV receivers sold today in the U.S. market are already configured to receive signals with multiple modulation modes -- these receivers are typically designed to receive signals from DBS systems, cable systems, NTSC, and 8-VSB broadcasters. Given this fact, it is irrational to conclude that the addition of one more digital modulation standard will harm the marketability of these receivers. This is particularly the case for COFDM, since there are already more than half a million COFDM receivers in service today in the U.K. and Europe, approximately fifteen times the number of 8-VSB receivers that have been sold in the United States (largely to retailers) over an almost identical period. In light of the economies of scale resulting from this widespread adoption of COFDM, it is likely that the necessary equipment and expertise are available to incorporate this technology into DTV receivers in the U.S. at minimal expense.

3. Effect on previous investment in ATSC 8-VSB technology

The proponents of ATSC 8-VSB who have also argued that a shift to a dual-mode DTV modulation standard would harm those companies and consumers that have already invested in ATSC's version of 8-VSB technology. A dual-mode standard does not mean the replacement of 8-VSB, however, and broadcasters and manufacturers committed to ATSC 8-VSB operations will be able to move forward with their business plans. Only if 8-VSB never permits ease of reception and reliable over-the-air service will these companies and consumers be harmed by their prior investment.[50] In any case, the Commission must be responsive to the evolution of technology, and the Commission cannot be required or expected to shape its policies to protect the value of these prior 8-VSB investments.

4. Benefits of a single modulation standard

As indicated above, in rejecting Sinclair's Petition, the Commission once again pointed to the supposed benefits of having a single broadcast transmission standard. For the reasons below, this justification is no longer valid; as Commission Chairman William Kennard himself suggested in a meeting with Sinclair during the fall of 1999, it is time for Commission to rely on the marketplace to decide the future roles of COFDM and 8-VSB in the broadcast industry.

First, and most fundamentally, reliance on a single standard makes no sense if, as in this case, that standard does not permit a viable service. The ATSC's version of 8-VSB technology has been shown to be inadequate, and the addition of an alternative technology to the DTV modulation standard is necessary for the survival of free, over-the-air broadcasting. Adherence to an exclusive ATSC 8-VSB standard out of pure regulatory principle alone would be irrational.

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50 The effect on consumers would be minimal in any event, with less than one-thirtieth of one percent of all U.S. TV households having invested in 8-VSB receiver technology to date.

Second, a flexible DTV modulation standard would actually be consistent with the Commission's overall approach to DTV technology. The ATSC DTV standard is in fact not a rigid one -- the Commission avoided inflexible standards for numerous other DTV operational parameters. For instance, the Commission did not require broadcasters to use either the interlacing or progressive scanning formats, and broadcasters now have eighteen different scanning options from which to select. Similarly, the Commission did not require broadcasters to adhere to any specific aspect ratios or lines of resolution. The Commission's regulatory scheme for DTV modulation should be treated in the same manner.

Finally, there is no longer any justification for singling out broadcasting for application of this "single standard" mandate. The Commission permits licensees in a variety of other services, including DARS, MMDS, DBS, and PCS, to operate using any number of transmission technologies. In particular, in stark contrast to the Commission's treatment of broadcasters, the Commission's Mass Media Bureau just last year decided to permit licensees in the Multipoint Distribution Service ("MMDS") and the Instructional Television Fixed Service ("ITFS") to operate using the related OFDM modulation technology as an alternative to several digital modulation technologies already in use. With broadcasters now eager to move forward with their own flexible and innovative business models, this double standard is no longer a tenable regulatory approach.

5. Delay in the roll-out of DTV

In response to Sinclair's Petition, the proponents of the ATSC 8-VSB standard argued that a rulemaking on COFDM would take several years, and that this process would severely delay the DTV transition. In its dismissal of the Sinclair Petition, the Commission agreed with these commenters and concluded that a conversion to a dual-mode standard would be a "multi-

year effort" and would cause a "significant delay in the implementation and provision of DTV services to the public." *Letter Order* at 3.

As an initial matter, Sinclair believes that implementation of the COFDM-based DVB-T standard as an alternative to ATSC 8-VSB could be completed far more quickly than projected by the Commission, and likely in little more than a year. DVB-T is a proven technology that has been implemented and commercialized outside the United States, and it has been and will continue to be demonstrated and tested domestically.[51] A Commission proceeding to settle any outstanding DVB-T coding and modulation issues and to develop appropriate interference criteria could likely be conducted in little more than six months. Following that proceeding, DVB-T set-top boxes could become rapidly available,[52] and broadcasters could quickly make the necessary modification to their transmitters – at an estimated cost of little more than $7,000 – in order to begin transmitting DVB-T programming.

From a timing perspective, the implementation of DVB-T as an alternative modulation standard promises a far more favorable outcome than continued exclusive reliance on the ATSC 8-VSB standard. There is no evidence that Motorola, NxtWave, or any other entity will be able to resolve the ATSC 8-VSB reception problem, and the Commission's complacent reliance on the unsubstantiated promises of these companies has left the DTV transition stagnant, headed towards a delay far longer than what would result from a regulatory process establishing DVB-T

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51 As Sinclair did in its Baltimore field trials, the MSTV Task Force will be testing the reception of DVB-T programming transmitted over a 6 MHz channel.

52 In a letter filed January 25, 2000 with the Commission, Pace Micro Technology, a DTV receiver manufacturer, indicated that if the Commission decided to permit COFDM/DVB-T operations in the U.S., it could have compatible DTV receivers available in the U.S. market in time for the 2000 Christmas shopping season, at prices fifty percent less than the price of the least expensive 8-VSB receiver. *See* Letter from David L. Novak, Marketing Manager, Pace Micro Technology – Americas, to William E. Kennard, Chairman, Federal Communications Commission (January 25, 2000).

as part of a dual-mode standard. Moreover, by relying on the efforts of those companies, the Commission is choosing the path of uncertainty, since it clearly has no control over these companies' technological capabilities, the pace of their efforts, or the economic feasibility of their products even if quality performance is demonstrated. In contrast, the Commission would be asserting substantial control over the progress and pace of the DTV transition if it permitted broadcasters to utilize the tried and proven technology of the DVB-T standard. The Commission's continued refusal to take advantage of this regulatory opportunity is becoming irrational.

Certainly, if the Commission and ATSC are going to initiate a standards-setting process for a new, backwards-compatible permutation of the ATSC 8-VSB standard, as some have speculated, the Commission should not hesitate to begin what would likely be a shorter process for an alternative DVB-T standard. Indeed, if the Commission had responded to Sinclair's Petition in October by initiating a rulemaking to modify the DTV modulation standard, Sinclair believes that the broadcast industry would be just months away from a comprehensive and lasting solution to the DTV reception problem.

IV. A New Reason to Modify the DTV Modulation Standard: COFDM Would Permit Various On-channel Retransmission Methods that Would Expand Access to DTV and Promote Spectrum Efficiency

In recent weeks, a new and compelling reason for a dual-mode DTV modulation standard has emerged: if the Commission permits broadcasters to operate using COFDM-based technology, broadcasters will be able to utilize various on-channel retransmission methods that would expand access to DTV and promote spectrum efficiency. In contrast, on-channel DTV operations will be extremely limited if the Commission maintains exclusive reliance on the ATSC 8-VSB standard. As explained below, this additional COFDM advantage stems once

again from the ability of this technology, unlike 8-VSB, to overcome complex multipath conditions.

A. COFDM permits various on-channel retransmission methods, while ATSC 8-VSB on-channel applications would be extremely limited

In today's NTSC analog environment, areas within broadcasters' Grade B contours that do not receive a strong enough signal for adequate reception are most commonly filled in through the use of TV translator facilities. These separately-licensed facilities receive a signal from a broadcaster's full-power station, shift that signal to another NTSC channel, amplify the signal, and retransmit the same programming into the pertinent areas. The Commission's rules do not yet provide for similar "off-channel" translator facilities in the digital environment, however, and it is unclear whether the Commission currently contemplates a parallel class of DTV translators either during or after the DTV transition.

The need for such a parallel class of DTV translators would be mitigated greatly if the Commission permits broadcasters to operate using COFDM technology. With COFDM, broadcasters would be able to utilize a variety of on-channel retransmission facilities to fill in gaps in their Grade A and Grade B coverage areas; here, a separate facility receives the full-power signal, and then simply amplifies and retransmits that signal on the same channel. Thus, for instance, broadcasters could operate on-channel repeaters to retransmit the DTV signal into large areas otherwise unable to receive service due to terrain limitations. Alternatively, they could operate less powerful, on-channel DTV boosters to ensure reception in apartment buildings, convention centers and other large complexes, and "urban canyons."

Unfortunately, such on-channel retransmission methods would be largely precluded if the Commission maintains exclusive reliance on the ATSC 8-VSB standard. Due to what would effectively be self-generated multipath conditions, ATSC 8-VSB DTV receivers in areas covered

by on-channel retransmission facilities would likely be unable to successfully receive a DTV signal. Such multipath reception failures would result for either of two reasons. In the first failure scenario, TV households in the repeater coverage area would receive not only a signal from the on-channel repeater, but also at least a faint signal from the full-power station – even with terrain-limited propagation, some level of the full-power signal would likely bleed through and reach those receivers. Just as an 8-VSB receiver fails under dynamic multipath conditions when multiple signals arrive at the receiver over a period of microseconds, 8-VSB receivers will fail when receiving two identical DTV signals, one from the full-power station and one from the repeater, at substantially different times.[53]

In the second failure scenario, the on-channel repeater's retransmitted signal would bleed back into its own receive antenna, with the result being that this repeater retransmits not only the signal from the full-power station, but also its own signal, with substantial (in terms of multipath) periods of time separating these transmissions. Once again, with two or more ATSC 8-VSB signals arriving at the receiver at substantially different times, reception will be substantially impaired.

In contrast, the use of COFDM-based technology would avoid these reception failures. Just as COFDM-based receivers are able to receive service under complex multipath conditions in broadcasters' core business areas, COFDM receivers would be able to process the staggered arrival of identical signals from an on-channel repeater and its associated full-power station.

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53 *See, e.g.,* Application of On-channel Boosters to Fill Gaps in DTV Broadcast Coverage, R.W. "Sam" Zborowski, ADC Telecommunications.

B. On-channel retransmission methods may expand access to DTV during and after the DTV transition

As indicated above, it is possible that the Commission will not permit the operation of off-channel DTV translators, either during or after the DTV transition. During the transition, there will be significant congestion in the broadcast TV spectrum, with every licensed NTSC station gaining a paired DTV channel. Even many NTSC translators – specifically, those that cause interference to DTV operations -- will have to cease operation during that period, and it appears unlikely that there will be sufficient spectrum during that time to permit the operation of digital translators. In addition, it is not clear if there will be enough spectrum to permit DTV translators even after the DTV transition, when the broadcast spectrum will shrink to channels 2-51.

Given the possibility that there will be no parallel class of DTV translators, television viewers located in DTV stations' coverage gaps may be able to receive DTV service only if the Commission permits COFDM operations and enables broadcasters to deploy on-channel retransmission facilities.[54] Many of the areas that have coverage gaps are inaccessible to cable operators, and also lack a clear azimuth for satellite reception. As a result households in these areas might lose access to television service altogether if on channel retransmission facilities cannot provide a receivable signal. If the Commission instead maintains exclusive reliance on the ATSC 8-VSB standard, those viewers who today rely on translators to receive over-the-air TV will likely have no access to digital over-the-air service during the transition, and may lose access to over-the-air service altogether at the DTV transition's conclusion. The result would be

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[54] Many of the areas that have coverage gaps are inaccessible to cable operators, and also lack a clear azimuth for satellite reception. As a result households in these areas might lose access to television service altogether if on channel retransmission facilities cannot provide a receivable signal.

a true "digital divide" between such remote areas and those households able to receive ATSC 8-VSB service.

The fact that COFDM permits a variety of on-channel retransmission methods clearly undermines the argument from proponents of the status quo that 8-VSB signals have greater reach and thereby provide superior service to market peripheries. Even if 8-VSB is assumed to have greater reach,[55] far more TV households are likely to lose access to 8-VSB DTV because of the absence of DTV translators or their on-channel equivalent than would fail to receive COFDM DTV service at the far perimeters of TV markets.

C. On-channel retransmission methods would enable the commission to manage spectrum more efficiently

The operation of on-channel retransmission facilities could do even more than increase consumer access to DTV. If broadcasters could fill in service gaps without using additional frequencies, the Commission would have an important new tool in its efforts to manage the spectrum efficiently. The Commission could decide to prohibit off-channel DTV translators during and after the digital transition, and instead assign individual or blanket on-channel repeater licenses to broadcasters who demonstrate a sufficient need for gap-filling operations. Such a policy would minimize operational clutter in the broadcast spectrum and maximize the amount of spectrum returned to the Commission. In this way, the Commission could derive the greatest possible value from this spectrum through competitive bidding, consistent with its policy towards broadcast channels 52-69.

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55 As indicated above, Sinclair continues to believe that this assumption is false. Sinclair's own field trials indicated that under real-world conditions, there is no significant difference in the reach of 8-VSB and COFDM signals. Moreover, households on the market periphery can always ensure high-quality reception through the use of a preamplifier; in contrast, there appears to be no remedy on the horizon for the failure of 8-VSB to overcome complex multipath conditions.

D. COFDM on-channel retransmission facilities would not cause interference to either NTSC or DTV stations operating in adjacent markets during the DTV transition

Some observers have questioned whether on-channel retransmission facilities would cause interference to NTSC and digital service in adjacent markets during the DTV transition. Operators of those facilities can avoid such interference, however, and those concerns should not prevent the Commission from authorizing such on-channel operations or shifting to a dual-mode DTV modulation standard.

First, those interference concerns do not take account of the terrain-limited propagation in areas that would rely on service from on-channel retransmission facilities. In states with substantially mountainous terrain, terrain blockage is likely to prevent the DTV signals from these facilities from propagating into adjacent markets. Even where signal propagation is not terrain-limited, Sinclair believes that it will be able to take the technical steps necessary to avoid such interference. Specifically, Sinclair expects to use directional antennas that steer the on-channel repeater's signal into the targeted market, on towers that are limited in height. In this way, adjacent market NTSC operations will be protected.

Conclusion

For all of the aforementioned reasons, Sinclair respectfully urges the Commission to expeditiously initiate a proceeding to reevaluate its DTV modulation standard, and ultimately take the steps necessary to make the benefits of COFDM/DVB-T technology available to the U.S. public.

Respectfully submitted,

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